

Notice of Allowability	Application No. 08/796,752 Examiner Phuongchau Ba Nguyen	Applicant(s) ARAI, KOJI Art Unit 2616
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to 4-20-6 & interview 5-8-6.
2. The allowed claim(s) is/are 3-5,8-9,11-12; Renumbered as 1-7 respectively.
3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All
 - b) Some*
 - c) None
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 4-13-5
4. Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. Notice of Informal Patent Application (PTO-152)
6. Interview Summary (PTO-413),
Paper No./Mail Date 5-9-6.
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other _____.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Ms. Temnit Afework on 5-9-6.

3. The application has been amended as follows:

-Claims 3-5, 8-9, line 4; Claims 11-12, line 3,

“(n=3, 4,...)” had been changed to

-----, wherein n is an integer ≥ 3 -----

-Claims 3-4, line 13; Claim 8, line 11; Claim 11, line 8,

“(k \leq (n-1))” had been changed to

-----, wherein $k \leq n-1$, -----

REASONS FOR ALLOWANCE

4. The following is an examiner's statement of reasons for allowance:

Regarding claim 3, the prior art fails to teach a communication method for a radio LAN system providing communication at a first transmission rate, said method comprising "transmitting a fourth signal through a radio transmission path between said terminal station and said at least one redundant radio base station n, data of said fourth signal having a given relationship with data in signals transmitted between at least k ($k \leq (n-1)$) radio base stations of said n-1 radio base stations and said terminal station; and compensating, when at least one transmission path between said at least k radio base stations and said terminal station is interrupted, data of the signal to be transmitted through an interrupted transmission path based on said data of said fourth signal transmitted between said at least one redundant radio base station n and said terminal station," which is considered in combination with other limitations, as specified in the independent claim 3.

Regarding claim 4, the prior art fails to teach a communication method for a radio LAN system providing communication at a first transmission rate,

said method comprising "transmitting a fourth signal through a radio transmission path between said terminal station and said at least one redundant radio base station n, data of said fourth signal having a given relationship with data in signals transmitted between at least k ($k \leq (n-1)$) radio base stations of said n-1 radio base stations and said terminal station; and compensating, when at least one transmission path between said at least k radio base stations and said terminal station is interrupted, data of the signal to be transmitted through an interrupted transmission path based on said data of said fourth signal transmitted between said at least one redundant radio base station n and said terminal station, where said given relationship when transmitting the fourth signal is that said data of said fourth signal transmitted between said at least one redundant radio base station n and said terminal station is a summation of data of the signals transmitted between said at least k radio base stations and said terminal station for each given time slot," which considered in combination with other limitations, as specified in the independent claim 4.

Regarding claim 5, the prior art fails to teach a communication method for a radio LAN system providing communication at a first transmission rate, said method comprising “transmitting said n-1 third signals of said second transmission rate through radio transmission paths between n-1 radio base stations and a terminal station connected with at least one terminal unit, wherein said radio LAN system further comprises at least one redundant radio base station n for transmission of data obtained by summing said n-1 signals; monitoring interruption of transmission paths between said n-1 radio base stations and said terminal station; and compensating, when one of said transmission paths is interrupted, data of an interrupted transmission path by transmitting said data of the interrupted transmission path between said at least one redundant radio base station n and said terminal station,” which is considered in combination with other limitations, as specified in the independent claim 5.

Regarding claim 8, the prior art fails to teach a communication apparatus for a radio LAN system providing communication at a first transmission rate, said apparatus comprising “n-1 radio base stations transmitting said n-1 third

signals of said second transmission rate to a terminal connected with at least one terminal unit through radio transmission paths; at least one summation means for generating a fourth signal by summing data of at least k ($k \leq (n-1)$) signals of said $n-1$ third signals of said second transmission rate every timeslots for compensating data of the interrupted path between one of the radio stations transmitting said k signals and the terminal; and at least one redundant radio base station n transmitting said fourth signal generated in at least one summation mean to said terminal station," which is considered in combination with other limitations, as specified in the independent claim 8.

Regarding claim 9, the prior art fails to teach a communication apparatus for a radio LAN system providing communication at a first transmission rate, said apparatus comprising "n-1 radio base stations transmitting said $n-1$ third signals of said second transmission rate to a terminal station connected with at least one terminal unit through radio transmission paths; at least one redundant radio base station n transmitting a signal to said terminal station for transmission of data obtained by summing said $n-1$ signals; line monitoring means for monitoring interruption of transmission paths between said $n-1$

radio base stations and said terminal station; and switching means, when at least one of said transmission paths between said n-1 radio base stations and said terminal station; and switching means, when at least one of said transmission paths is interrupted, for forwarding a signal to be transmitted through an interrupted transmission path to said at least one redundant radio base station n," which is considered in combination with other limitations, as specified in the independent claim 9.

Regarding claim 11, the prior art fails to teach a terminal station used in a radio LAN system having rate-conversion and distribution means for time-divisionally distributing a first signal of a first transmission rate into n-1 second signals (n=3, 4,) and respectively converting said n-1 second signals into n-1 third signals of a second transmission rate less than said first transmission rate, n-1 radio base stations transmitting said n-1 third signals of said second transmission rate to said terminal station connected with at least one terminal unit through radio transmission paths, at least one first summation means for generating a fourth signal by summing data of at least k ($k \leq (n-1)$) signals of said n-1 third signals of said second transmission rate for

every timeslot, and at least one redundant radio base station n transmitting said fourth signal generated in said at least one first summation means to said terminal station, said terminal station comprising, "line monitoring means for monitoring interruption of transmission paths between said $n-1$ radio base stations and said terminal station; at least one second summation means, when at least one of said transmission path is interrupted, for generating a fifth signal by summing data of every timeslots of at least k signals of signals transmitted from said $n-1$ radio base station except for a signal to be transmitted through an interrupted transmission path; at least one subtraction means for generating subtraction data between data of the signal transmitted from said redundant radio base station n and data of said fifth signal generated in said second summation means; and switching means for providing said subtraction data generated in said subtraction means to said rate-conversion and multiplex means instead of providing data of an interrupted signal detected in said monitoring means; wherein even when at least one of signals transmitted from said $n-1$ radio base stations is interrupted, data of the

interrupted signal is compensated," which is considered in combination with other limitations, as specified in the independent claim 11.

Regarding claim 12, the prior art fails to teach a terminal station used in a radio LAN system having rate-conversion and distribution means for time divisionally distributing a first signal of a first transmission rate into $n-1$ third signals ($n=3, 4,$) and respectively converting said $n-1$ second signals into $n-1$ third signals of a second transmission rate less than said first transmission rate, $n-1$ radio base stations transmitting said $n-1$ third signals of the second transmission rate to said terminal station connected with at least one terminal unit through radio transmission paths, at least one redundant radio base station n transmitting a signal obtained by summing said $n-1$ third signals to said terminal station, first line monitoring means for monitoring interruption of transmission paths between said $n-1$ radio base station and said terminal station, and first switching means, when at least one of said transmission paths is interrupted, for forwarding a signal to be transmitted through an interrupted transmission path to said at least one redundant radio base station n ; terminal station comprising "a receiver receiving said third signals of the second

transmission rate transmitted from said n-1 base stations; second line monitoring means for monitoring interruption of transmission path between said n-1 radio base stations and said terminal station; and second switching means, when at least one of the transmission paths is interrupted, for providing the signal transmitted from said redundant radio base station to said rate conversion and multiplex means instead of providing a signal to be transmitted through an interrupted transmission path; wherein even when at least one of signals transmitted from said n-1 radio base stations is interrupted, data of the interrupted signal is compensated," which is considered in combination with other limitations, as specified in the independent claim 12.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchau Ba Nguyen whose

telephone number is 571-272-3148. The examiner can normally be reached on Monday-Friday from 10:00 a.m. to 2:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571-272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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